Introduction Section

Presented to: Division of Alcohol and Drug Abuse
State of South Dakota

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Introduction

Alcohol and illicit drug abuse and addiction place enormous burdens on the country. As the number one health problem in America, it strains the healthcare system and contributes to the death and ill health of millions of people every year and to the high cost of health care. All population groups are subject to the ravages of substance abuse. People of all groups (i.e., men, women, all age groups, racial and ethnic groups, and people from various income and education categories) drink and use illicit drugs (Substance Abuse: The Nation's Number One Health Problem, The Robert Wood Johnson Foundation, Princeton, NJ, 2001).

Substance abuse affects not only the abusers themselves but also their families, friends, and society in general, harming family life, individual lives, the economy and public safety. It is estimated that the combined alcohol and drug abuse costs are more than $325 billion each year for health care, the criminal justice system, insurance, financial support, and the loss of productivity and lives (Office of the National Drug Control Policy 2001; Substance Abuse Treatment Effectiveness in Tennessee, 2002).

Another source of information places alcohol abuse costs at $166.5 billion per year with the proportion of the costs at 46% illness, 21% deaths, 12% medical, 11% other related costs, 9% crime, and 1% special conditions (U.S. Department of Health and Human Services, 1998). Illness losses were defined as the value of lost productivity due to illness or injury. Death losses considered the value of lost productivity due to premature death. Medical cost losses were health care expenditures, including alcohol and drug abuse services. Other related costs were motor vehicle crashes, fire destruction, and social welfare administration. Crime costs included direct costs (i.e., administration costs of the criminal justice system, property damage and private legal defense) and indirect costs (e.g., value of lost productivity related to victims of crime, incarceration and criminal careers). Special conditions considered HIV/AIDS attributable to drug abuse, fetal alcohol syndrome, and related areas.

In South Dakota, persons with substance abuse problems are treated through a variety of funding sources, including private, State, and Federally sponsored programs. This report focuses on programs funded by Federal and State funds, as administered by the Division of Alcohol and Drug Abuse.

Division of Alcohol and Drug Abuse

The Department of Human Services, Division of Alcohol and Drug Abuse is responsible for prevention and treatment programs for alcohol and other drug use in South Dakota. The Division received and disbursed approximately 15.8 million in funds for fiscal year 2006. During fiscal year 2006 (July 1, 2005 - June 30, 2006) a total of 14,177 clients (unduplicated count) received services through 61 accredited treatment facilities within the State. These clients received services ranging from crisis intervention to structured treatment programs, with many of them receiving multiple services. Historically, funding for treatment services has been based on an agency's production of units of service that were provided to clients. The Division presently evaluates program services by assessing the number and types of services provided throughout the state. Additionally, a comprehensive assessment outcome study is utilized to assess the success of programs for indigent outpatient and inpatient treatment clients.

Mission Statement of the Division of Alcohol and Drug Abuse: To reduce the prevalence of substance abuse disorders through prevention and treatment services.

Priority Goals of the Division of Alcohol and Drug Abuse

- Continue to provide funding for the operation of a comprehensive alcohol and drug prevention and treatment continuum for adolescents at the community level, including relapse programming for youth.

- Explore the development of co-occurring treatment programs for those individuals with alcohol and drug and mental health issues.

- Continue to operate specialized treatment programs for those clients addicted to methamphetamines.

- Continue the operation of alcohol and drug programming for the adult and juvenile offenders within the correction's system.

- Continue specialized treatment services for pregnant women and women with dependent children, including specialized community-based case management services for pregnant women and women with dependent children assessed as being at high risk for substance abuse issues.

- Continue the funding for gambling treatment services.

- Continue case management activities for adolescents and adults entering residential treatment programming.

- Continue to conduct research activities related to the effectiveness of alcohol, drug and gambling prevention and treatment programs.

Funding for Alcohol and Drug Programs

Of the projected 5 million dollars flowing to South Dakota in FY06 from the Substance Abuse Prevention and Treatment (SAPT) Block Grant, at least 95% is spent on prevention and treatment activities for alcohol and other drugs. This includes the 20% set aside for primary prevention activities.

Also included in the FY06, $1,910,107 was expended for substance abuse services for the Correctional Substance Abuse Programs. This is a combination of funding through the Edward Byrne Memorial Fund, the Violent Offender Incarceration Truth in Sentencing (VOITIS) Grant, the Residential Substance Abuse Treatment (RSAT) Grant, the Office of Highway Safety, and State general funds. The total amount to be spent on all prevention, gambling, and treatment activities was approximately 15.8 million during FY06.

Currently, the SAPT prevention and treatment funds are contracted to a wide variety of accredited treatment programs. Agencies which provide alcohol or drug services presently provide one or more of the following types of accredited services: (1) Prevention; (2) Level 0.5 Early Intervention; (3) Level I Outpatient Treatment; (4) Level

II.1 Intensive Outpatient Treatment; (5) Level II.5 Day Treatment (6) Level III.2-D Clinically-Managed Residential Detoxification; (7) Level III.1 Clinically-Managed Low Intensity Residential Services; and (8) Level III.7 Medically-Monitored Intensive Inpatient Treatment for Adolescents and Adults. The American Society of Addiction Medicine Patient Placement Criteria for Substance-Related Disorders (ASAM-PPC-2, Revised) is used as a clinical guide in matching clients to appropriate levels of care.

Type of Treatment Services

A. INTENSIVE INPATIENT TREATMENT: A residential treatment program of subacute care, which provides medically monitored structured and intensive treatment for chemically dependent clients.

B. INTENSIVE OUTPATIENT TREATMENT: A non-residential program which provides chemically dependent/abuse clients a clearly defined, structured, intensive treatment program on a scheduled basis.

C. OUTPATIENT SERVICES PROGRAM: A non-residential program which provides chemically dependent/abuse clients a clearly defined, structured treatment program on a scheduled basis.

D. EARLY INTERVENTION PROGRAM: A non-residential program that provides early intervention services to individuals who may have substance use related problems, but do not appear to meet the diagnostic criteria for Substance-Related Disorder. The program provides initial assessment, intervention, alcohol and drug education and referral.

E. RESIDENTIAL DETOXIFICATION: A clinically managed residential detoxification program providing for the supervised withdrawal from alcohol or drugs of persons without known serious physical or immediate psychiatric complications. The program furnishes temporary care, information, counseling, evaluation and referral, and provides for entry into the continuum of treatment services.

F. CLINICALLY-MANAGED LOW-INTENSITY RESIDENTIAL PROGRAM: A residential, peer-oriented treatment program of subacute care designed to aid the client's re-entry into society. The program must provide direct alcohol and drug counseling, and support service counseling by referral.

The programs provide case management services that will help clients to find employment, and to coordinate other services as may be necessary to facilitate the client's successful re-entry into the community.

G. DAY TREATMENT PROGRAM: Day treatment is a non-residential program providing a minimum of 20 hours of structured intensive treatment services per week. Phase I clients are involved in the Day Treatment Program while living at the facility.

H. (SLIP SLOT) INTENSIVE OUTPATIENT TREATMENT: A non-residential program which provides chemically dependent/abuse clients a clearly defined, structured, intensive treatment program on a scheduled basis. There is special emphasis on relapse prevention planning. Clients in this category must receive prior approval by the Division of Alcohol and Drug Abuse. Clients who attend this program are also receiving services in the clinically managed low-intensity residential treatment program.

Outcome Methodology

Target Populations for Study

The targeted populations for the pre-test and follow-up procedures include adults and adolescents in community-based treatment programs funded by the Division of Alcohol and Drug Abuse with SAPT Block grant funds. Additionally, adolescents and adults in treatment programs associated with Department of Corrections (DOC) facilities or programs, along with community-based gambling treatment programs are part of the outcome studies procedures.

Data Collection

Clients in the five targeted (community-based adolescent and adult substance abuse and gambling treatment, and DOC adolescents and adults) treatment programs are administered intake, history, discharge, and informed consent forms after admission to the programs. A follow-up form is completed at one year post-treatment. The adolescent and adults forms are different. Most of the forms (CATOR) were carried over from the previous outcome studies contractor and are used by permission. The forms are sent to Mountain Plains Research by the treatment programs in two separate shipments. The Intake, History,

and Discharge forms are sent with ID numbers only. The Consent forms and Log Sheets, which contain names and addresses, are sent in separate mailings.

Intake Form

The Intake Form collects basic demographic information (age, sex, marital status, education, employment, etc.), along with referral sources, and type of substances used.

History Form

The History Form contains detailed information on the client's past substance use, some demographic information, work history, family substance use history, physical abuse, sexual abuse, mental health, criminal justice, medical, accident, and related factors.

Discharge Form

The Discharge Form collects information on type of program, program completion status, discharge status, family participation in program, post-discharge referrals, and related information.

Informed Consent

The Consent Form is a standard consent form with information on the clients, 'significant others,' and other contact persons, which helps to facilitate finding clients during follow-up.

Follow-up Form

The Follow-up Form asks information that corresponds with intake and history information so that comparative pre- and post-information can be assessed. Additionally, the clients are asked to relate/assess their treatment program experiences, resulting in valuable information about strengths and weaknesses of the various programs.

For the community-based programs (including gambling), MPR phone interviewers obtain follow-up information from structured interviews. For those without phones but who have current mailing addresses, the same questionnaire is sent via mail to the clients for completion. A small

incentive ($5.00 gift certificate) is provided for those completing the mail survey. The interviews/surveys are conducted 12 months post-treatment with multiple opportunities provided for clients to respond. At least five attempts are made at varying times and days of the week for the phone interviews.

For persons in DOC programs, the follow-up forms are administered by the parole officers for adults and by JCA's for juveniles. Currently, a pilot project is being conducted in which adults are being conducted by phone using the same process and forms as the community-based programs.

Inclusion Criteria for the Outcome Studies Population for the Community-Based Program

1. The client's treatment was funded by the SAPT Block Grant or Title 19 funds; and,

2. The clients complete the treatment program and all the required forms; and,

3. The client consented to participate in the outcome study.

Exclusion Criteria for the Outcome Studies Population for the Community-Based Program

1. The client did not complete the treatment program.

2. The client did not sign the consent form and/or complete the other required forms.

3. At the time of the follow-up the client did not have a valid phone number or address, no contact person, and/or the contact person could not be located.

4. The client was institutionalized in jail/prison or other facilities that inhibit or forbade contact with client.

5. The client was deceased.

6. The client refused to be interviewed at time of follow-up.

Sample Considerations of Study Population-Adults Community Programs

Of the adults in community-based programs who could be contacted a large majority (82.1%) completed the follow-up survey. More than two-fifths of the adult clients were excluded because of insufficient (or outdated) phone or address information, which is consistent with the transient nature of many of the clients.

In considering the adolescents in community-based programs who could be contacted, an impressive number (81.6%) completed the follow-up survey. More than one-third of the adolescent clients were excluded from the sample because of insufficient (or outdated) phone or address information. The number of follow-up surveys completed, as reported below, is smaller than those reported on the outcome segment, because the reasons for exclusion were not available early in the project.

Adults Participating in the Outcome Study-Community-Based Programs

Adult clients who consented to participate		5088
Excluded from sample		2982
	No Phone, Address, or Moved	2683
	Institutionalized	145
	In Treatment	13
	Deceased	23
	Refused to Participate	118
Eligible for Follow-up		2106
Follow-up Interviews Completed		1730
Follow-up Interviews Not Completed		376
Follow-Up Rate for those Eligible		82.1%

Adolescents Participating in the Outcomes Study- Community-Based Programs

Adolescent clients who consented to participate		339
Excluded from sample		132
	No Phone, Address, or Moved	120
	Institutionalized	8
	In Treatment	1
	Deceased	0
	Refused to Participate	3
Eligible for Follow-up		207
Follow-up Interviews Completed		169
Follow-up Interviews Not Completed		38
Follow-Up Rate of those Eligible		81.6%

Basic Research Design

A basic pre-test/post-test design without control groups is used to assess the outcome results. The follow-up questionnaire for the community-based program clients is administered via phone and supplemented by mail surveys sent to those without phones (if addresses are available). For the DOC program, parole officers (adults) and Juvenile Corrections Agents (adolescents) complete the forms for clients at 12 months post-placement or termination of parole (adults) or aftercare (probation) for adolescents.

Sampling Design

A non-probability sampling design is used in the outcome studies. In actuality, all clients are targeted for intake and follow-up data collection in all five populations. The only reasons persons are not contacted include: not consent form, no known address/phone number, deceased, or institutionalized. Attempting to contact all clients is believed to be superior to random (or other procedure) sampling method for the following reasons:

1. With small sample sizes, as per sampling, it would not be feasible to compare individual programs with small program numbers.

2. Many indigent clients do not have permanent addresses, therefore finding replacement persons for the sampling design would be tenuous at best. It is unknown in advance who can be located during follow-up.

3. Because the outcome studies is an ongoing, continuous procedure with follow-ups administered 12 months after treatment, there is not a point in which all pre-test information and consent forms are available for random sampling purposes for the entire year.

4. Because clients can decline participation in the initial data collection and subsequent follow-up procedures, the population of study participants may differ from the population of persons completing treatment.

Federal Guidelines on Informed Consent

Based on the Section 46.116 of the Federal Policy for the Protection of Human Subjects informed consent allows

“that participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject (client) is otherwise entitled, and the subject (client) may discontinue participation at any time without penalty or loss of benefits to which the subject (client) is otherwise entitled.”

Statistical Procedures

Generally the traditional probability level of less than or equal to .05 was used for determining statistical significance. In the case of the non-response analysis the Bonferroni procedure (.05/number of independent analyses) was used to correct for multiple comparisons on the same data set. Percents, frequencies, means, standard deviations, correlational analysis, t-test, Chi-square, crosstabs, and regression procedures were used to analyze and present the information.

Data Integration and Analysis

To test the effectiveness of the treatment programs and to assess demographic, social, and personal factors related to outcome factors, admission data were integrated with the follow-up information. Computer software used to enter, store, and analyze the data include Microsoft Access, Microsoft Excel, Epi Info, SPSS, and SAS.

Analysis of Non-Responses: Adults in Community-Based Programs

Overall, there were some differences and similarities between adults who completed the follow-up surveys and those who were excluded (mainly because they couldn't be located) from the study, based on intake information. For 8 of the 13 factors (e.g., gender, native language, education, disability, welfare, reasons for entering treatment) assessed there were not any statistically significant differences between the two groups. There were differences in three main areas. Those who could be followed differed from the excluded persons in terms of ethnicity, marital status, and employment status. Those who could be located were less likely to be Native American and more likely to be 'white.' Additionally, those who could be located were less likely to be 'never married' and more likely to be 'married' than were the excluded persons. Finally, the located group members were more likely to be employed and less likely to be unemployed than were persons in the excluded group.

Analysis of Non-Responses: Adolescence in Community-Based Programs

Overall, there were not major differences between adolescents in community-based programs who completed the follow-up surveys and those who were excluded. For 6 of the 7 factors (e.g., gender, adopted, twins, court ordered, and school status) there were not any statistically significant differences between the two groups. There was a significant difference in one area. Those who could be located were less likely to be Native American and more likely to be 'white' than were the excluded persons.

Analysis of Non-Responses: Adults Community Programs

Factor		Clients with Completed Follow-ups %	Clients Excluded or with Incomplete Follow-ups %	Statistical Significance
Gender	Males	68.4	66.6	ns(.17)
	Females	31.6	33.4	
Ethnic	Native America	17.7	27.6	P < .001
	White	77.3	64.6	
Native Language	English	98.9	97.9	ns(.02)
	Spanish	0.6	0.7	
	Other	0.5	1.4	
Marital Status	Never Married	50.7	54.0	P < .001
	Divorced	22.8	23.8	
	Separated	4.8	7.3	
	Widowed	1.7	1.4	
	Married	20.0	13.4	
Highest Degree	None Received	11.7	15.1	Ns(.04)
	HS/GED	67.5	66.1	
	Voc Tech	11.5	11.8	
	A.S/A.A.	4.0	3.6	
	B.S./B.A.	4.5	2.9	
	M.S./M.A.	0.6	0.3	
	M.D./J.D./Doc	0.3	0.2	
Receiving Disability	Yes	6.0	5.6	ns(.56)
	No	94.0	94.4	
Receiving Welfare	Yes	3.9	4.8	ns(.11)
	No	96.1	95.2	
Reasons for Entering Treatment	DWI/DUI	46.8	40.5	P < .001
	Other Court Action	30.5	36.7	P < .001
	In lieu of Incarceration	8.3	10.2	ns(.03)
	Ultimatum from Employer	1.5	1.4	ns(.72)
	Ultimatum from Spouse	3.7	4.1	ns(.89)
Employment	Full Time	45.5	37.9	P < .001
	Part Time	11.5	12.0	
	Unemployed	33.1	40.7	
	Other	9.9	10.0	

ns = not significant
.05/13 = .004 (the adjusted probability level)

Analysis of Non-Responses: Adolescents Community Programs

Factor		Clients with Completed Follow-ups %	Clients Excluded or with Incomplete Follow-ups %	Statistical Significance
Age		16.5	16.3	ns(.13)
Gender	Males	51.6	56.2	ns(.32)
	Females	48.4	43.8	
Ethnic	White	72.2	44.2	P < .001
	Hispanic	2.6	2.6	
	Black	0.0	2.3	
	Native American	19.1	40.8	
	Biracial	5.2	9.8	
	Other	1.0	0.4	
Adopted	Yes	5.8	3.1	ns(.15)
	No	94.2	96.9	
Twin	Yes	4.2	2.3	ns(.25)
	No	95.8	97.7	
Court Ordered	Yes	70.4	68.9	ns(.73)
	No	29.6	31.1	
Current School Status	Currently in School	80.7	67.6	ns(.04)
	Suspended	1.0	2.6	
	Expelled	0.5	1.5	
	Quit School	5.2	5.7	
	Working on GED	9.9	16.6	
	Graduated from High School	2.6	6.0	

ns=not significant
.05/7 = .007 (the adjusted probability level)

Limitations of the Outcome Study

1. Since many clients cannot be located one year post-treatment, only persons with current phone numbers or addresses can be followed. Because of the indigent nature of the clients, many are very mobile and are difficult to locate 12 months post-treatment. It is unknown if these clients have better or worse outcome performance levels than the clients who can be located.

2. There are varying procedures for collecting outcome results and the survey instruments are not the same for the five populations. It is not feasible to compare the results of the community-based programs with the criminal justice based programs because of these differences. The instruments were originally designed to collect information unique to the separate environments. Additionally, adults and adolescents have different standardized instruments because of differing maturity and educational levels. In the future it may be beneficial to find or develop common intake and outcome measures for all groups.

3. Most of the information from the intake and outcome instruments is based on the self-perceptions and/or self-reports of the clients. The self-reported information may bias the results of the analyses.

4. Some of the information is missing from the clients' data forms, although the overall rate of completed information by questions is more than 97 percent, which is very good for these types of clients and instruments. The limited amount of missing information is not believed to alter the results of the data analyses, since the missing information by question appears to be random and not systematic.

5. The data collected from the programs are not always conducted in a consistent manner, because of staff turnover or degree of attention to detail and/or the program's perception of the importance of data collection and program evaluation. Data discrepancies are handled expeditiously between the outcome studies contractor (MPR) and the various individual programs. Overall, the programs are very responsive to correcting data deficiencies should they occur. There have been no consistent major problems with the data collection. The most common problems are missing information (e.g., signatures, contact persons, addresses,

phone numbers) on the consent form. In addition, a few programs are uneasy about using social security numbers and use alternative ID's, which makes for additional work for the programs and the contractor.

Cost-Effectiveness of Treatment

Substance abuse treatment has been found to be effective and cost saving. Effective treatment programs have been shown to save taxpayers approximately $9,177 per client. Most of this amount (94%) is realized through reduced crime-related results, some (4%) was from clients' increased earnings, and the rest (2%) was from decreased health care costs (Center for Substance Abuse Treatment, 2000).

A study in California was undertaken to assess the benefits of treatment (Gerstein, Johnson, Harwood, Fountain, Suter, and Malloy, 1994). The results are summarized below.

Summary of Key Findings from large cost-benefit study in California:

- **Total Cost and Savings for One Year:** Taxpayers paid $209 million in treatment costs, but received $1.5 billion in savings.

- **Daily trade-off:** Each day of treatment paid for itself (the benefits of taxpaying citizens equaled or exceeded the costs), primarily through avoidance of crime and increased health and employment benefits.

- **Cost-benefit ratios for taxpaying citizens:** The benefits of alcohol and other drug treatment outweighed the costs of treatment by ratios from 4:1 to greater than 12:1 depending on the type of treatment. That is, there are between $4 and $12 in benefits to taxpayers for every dollar invested in treatment, depending upon type (outpatient, residential) of treatment and substance used (alcohol, cocaine, etc.). The cost benefit in this study averaged $7 return for every dollar invested.

Types of Treatment Effectiveness in California Study:

- **Crime:** The level of criminal activity declined by two-thirds from before treatment to after treatment. The greater the length of time spent in treatment, the greater the percent reduction in criminal activity.

- **Alcohol/Drug Use:** Declines of approximately two-fifths occurred in the use of alcohol and other drugs from before treatment to after treatment.

- **Health Care:** About one-third reduction in hospitalizations was reported from before treatment to after treatment. There were corresponding significant improvements in other health indicators.

- **Employment and Economic Situation:** Overall, treatment did not have a positive effect on the economic situation of the participants during the study period. However, data indicate that longer lengths of stay in treatment have a positive effect on employment. This finding is greater for those in the social model or other residential programs than for other treatment types. The largest gains in employment occur with those individuals staying in treatment beyond the first month.

Assessment of Economic Benefits of Completing Substance Abuse Treatment Programs in South Dakota

Five areas of savings or benefits were assessed, based on client information available from outcome studies in South Dakota, along with statewide and national financial information. The five areas assessed were: days worked, days of lost work, criminal justice-arrests, criminal justice-prison, and healthcare costs. The total dollar benefit values are not inclusive of all possible benefits associated with completing substance abuse treatment programs in South Dakota.

One area assessed was the numbers of days employed. Before treatment (based on more than 1000 persons followed 12 months after treatment), about two-thirds (66.7%) of the clients were employed. Twelve months post treatment a much higher percent (90.9%) was employed. In estimating the benefits per person, the percent employed for each time period was multiplied times the theoretical annual salary of $20,000. The median household income in 2000 in South Dakota was $34,840 (Source: U.S. Census Bureau, Demographic Surveys Division, Continuous Measurement Office, 2002).

Another employment factor utilized was the number of days of lost work per year. Before treatment the clients averaged 40.8 days of missed work per year. During the year following treatment, the number of missed days at work was only 14.4. The $20,000 annual salary is about $77 per day.

The criminal justice costs add to the cost-benefit of treatment, because of the high arrest rate of persons with substance abuse problems. Before treatment 75 percent of the clients had been arrested, but the percent of clients arrested 12 months post treatment was significantly less at 18.5 percent. The cost per arrest was determined by dividing the estimated cost of operating police and/or sheriff’s offices in South Dakota in 2002 by the number of persons arrested in South Dakota in 2002. The arrest costs would include all facets of local law enforcement, including the cost of operating local jails, if applicable and included in the budget.

The computation of direct costs for prison is more complex to assess, but the following methodology is offered. The average cost for housing prisoners in South Dakota is about $40 per day or about $14,600 per year. For every intake into the prison system in South Dakota in 2002, there was an average of about 22 arrests during the same period of time. Using the number of 22 arrests equals 1 incarceration for one year (to make it consistent with the other categories), the approximate costs for the average client for one year was calculated, based on the likelihood of arrest for the typical person in the treatment program at one year pre- and at one year post-treatment, respectively.

Healthcare costs were determined by days hospitalized times the average cost per day. The days hospitalized came from the outcome study forms. The amount per day was taken from national rates for 1995.

The cost of treatment was calculated from information provided by the Division of Alcohol and Drug Abuse in South Dakota. There were 1851 persons for whom the Division paid for their treatment services in treatment programs that were part of the cost-benefit segment of this report. Costs for these 1851 clients were tabulated from inpatient/residential treatment programs ($614,920), outpatient treatment programs ($1,141,759), West River–IOT ($378,719), and the client's share ($432,590) of the total counseling aftercare budget ($761,852). The total budget ($2,558,989) was divided by the number (1851) of clients to obtain the per client cost of treatment, which was $1,382. The cost ($1,382) of treatment was significantly less than the benefits ($11,653), resulting in a very favorable cost-benefit ratio. The cost benefit in this study was $8.43 for every dollar invested. The cost benefit results presented here are similar (although somewhat higher-$8.43 compared to $7.00) to those reported elsewhere (Center for Substance Abuse Treatment, 2000; Gerstein, Johnson, Harwood, Fountain, Suter, and Malloy, 1994).

Estimated Savings Per Person in South Dakota Per Year for Completing Treatment

Areas of Benefit	Estimated Costs Before Treatment	Estimated Costs After Treatment	Estimated Benefits
[1]Employment: days worked	66.7% employed year prior to treatment @ $20,000 per year = $13,340	90.9% employed year after treatment @ $20,000 per year =$18,180	$18,180-$13,340 = **$4,840**
[2]Employment: days not worked	40.8 days per year prior to treatment @ $77/day = $3,142	14.4 days per year after treatment @ $77/day = $1,109	$3,142-$1,109 = **$2,033**
[3]Criminal Justice: Persons Arrested+	1.4 arrests per person year prior to treatment @ 2,362 = $3,307	.3 arrests per person year after treatment @ $2,362=$709	$3,307-$709= **$2,598**
[4]Criminal Justice: Prison	1.4 arrests per person equals .0636 years prison @ 14,600 = $929	.3 arrests per person equals .0136 years @ $14,600=$199	$929-$199= **$730**
[5]Healthcare: Hospital	3.3 Days per year prior to treatment @ $968/Day = $3,194	1.8 Days per year after treatment @$968/Day = $1,742	$3,194-$1,742= **$1,452**
Total			**Total = $11,653**

+Rapid City police department budget in 2002 = $8,060,515. In 2002 Rapid City had 7.9 percent of the state's population (60,098/761,063).
+$8,060,515 divided by .079 = $102,031,835 (estimated state budget).
+The number of arrests in South Dakota in 2002 was 37,588 based on 87 percent of the population represented by submitting law enforcement jurisdictions.
+37,588 divided by .87 = 43,205 (estimated number of arrests statewide).
+$102,031,835 divided by 43,205 = $2,362 (estimated cost per arrest).

[1] Employment percents from outcome studies of community-based treatment programs. Amount of job ($20,000) was based on theoretical job amount.

[2] Employment days from outcome studies of community-based treatment programs. Amount ($50) for missing days is based on 50 percent of salary.

[3] Arrest information is from outcome studies of community-based treatment programs. Costs per arrest is based on budget for Rapid City Police Department in 2002 prorated to a state amount, along with number of persons arrested in 2002 (from Crime in South Dakota 2002) prorated to state total. Total estimated budget in the state [divided] by number of arrests = $2,362 per arrest. This is tentative pending finding all actual budgets.

[4] Information is from South Dakota Department of Corrections.

[5] Number of days is from outcome studies community-based treatment programs. $968 (1995 information) per day is from: "1997 Statistical Abstract of the United States", citing data from the American Hospital Association, Chicago IL, "Hospital Statistics," annual editions.

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